**Quality Assessment of GPS RO Bending Angle Data at the UCAR CDAAC**

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This presentation first gives an overview of GPS RO data processing algorithms used at the UCAR COSMIC Data Analysis and Archive Center (CDAAC) and then investigates RO bending angle data quality from different RO instruments and missions. The overview of data processing will focus on three main steps that include Precise Orbit Determination (POD), computation of atmospheric excess phase, and computation of ionosphere-free neutral atmospheric bending angles. The bending angle quality assessment will be presented for all RO missions processed by CDAAC and will quantify performance related to profile penetration and random and systematic errors. Current results suggest bending angle noise is near the 1.5e-6 radian level and bending angle stability between different instruments is at the 3e-8 radian level for altitudes above 30 km.